REGULATORY COMPLETENESS CHECKLIST FOR HAZARDOUS WASTE INCINERATORS

Facility Name _____ Contact Name _____
Address _____ Contact Phone Number _____
_____ Date of Application
_____ Submission _____

Subject requirement	40 CFR section Nos.	Provided	Not Provided	Not Applicable	Remarks
Certification					
Permit applications All technical data	§122.6 §122.25	___	___	___	
PART A - APPLICATION	122.6(a) and (b) 122.4(d) 122.24				
A-1 Administrative Items					
All signatures are present. All applicable lines have been filled out completely and correctly (e.g., parts II & X of Form 1 correspond; information is on the correct lines, etc.).					
A-2 New Facility ___ Exist Facility ___ First App. ___ Revised App. ___		___	___	___	
A-3 Name, Address, & Telephone No. of Facility Owner		___	___	___	
A-4 Latitude and Longitude		___	___	___	
A-5 Description & Design Capacity of TSD Processes		___	___	___	
Proper codes have been used for Parts III & IV of Form 2.					
A-6 Information on Wastes Listed in Part 261 to be Treated, Stored, or Disposed of at the Facility		___	___	___	
Are improper EPA hazardous waste I.D. Nos. listed? Have any of the wastes listed on the application been delisted?					
A-7 Check Design Capacity Against Estimated Annual Quantity for Reasonableness		___	___	___	
Based on maximum operating time (24 h/day, 7 days/wk, 365 days/yr), does annual quantity appear high? Does operating time appear reasonable?					
A-8 Facility Drawing Map Photographs		___	___	___	
A-9 Additional Comments (Incompatible Wastes, Inconsistencies, etc.)					

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PART B - GENERAL FACILITY STANDARDS AND INFORMATION					
B-1 General Description A general description of the facility, including the nature of the business. Offsite facilities should identify the types of industry served; onsite facilities should briefly describe the process(es) involved in the generation of hazardous waste.	122.25(a)(1)	___	___	___	
B-2 Topographic Map A topographic map showing the facility and a distance of 1000 feet around it, at a scale of 1 in. equal to not more than 200 ft. Map must include contours sufficient to show surface water flow around facility unit operations, map date, 100-yr floodplain area, surface waters, surrounding land uses, a wind rose, map orientation, and legal boundaries of facility site. The map should also indicate location of access control, injection and withdrawal wells, buildings, structures, sewers, loading and unloading areas, fire control facilities, flood control or drainage barriers, run-off control systems, and location of hazardous waste operation units (see NOTE below).	122.25(a)(19)	___	___	___	
B-3 Location Information	122.25(a)(11)				
B-3a Seismic Considerations For new facilities only, applicant must identify the political jurisdiction (county, township, or election district) in which facility will be located. If located in any of the political jurisdictions specified in Part 264 Appendix VI, the applicant must prove that the facility is located at least 3000 ft from any fault where movement has taken place in Holocene time or that no such faults pass within 200 ft of the portions of the facility used for treatment, storage, or disposal of hazardous waste. Proof may come from geologic studies, aerial photographs, field observations, or subsurface investigations. All information gathered must be acceptable by a geologist experienced in evaluating seismic activity.	122.25(a)(11)(i) and (ii 264.18(a) 264 Appendix VI	___	___	___	

NOTE: Although many of these items can be shown on a single map, it is allowable to use additional maps to display some of the information. Presentation of all of this information on a single map will sacrifice clarity. For example, separate maps could be used to show the 100-year floodplain area and the location of loading and unloading areas.

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B-3b Floodplain Standard Documentation of whether or not the facility is located within a 100-yr floodplain including the source of data (Federal Insurance Administration Map or other maps and calculations).	122.25(a)(11)(iii) 264.18(b)	———	———	———	
B-3b(1) Demonstration of Compliance For facilities located within the 100-yr floodplain, a description of how the facility is designed, constructed, operated, and maintained to prevent washout of any hazardous waste during a flood. Either of the following may be used:	122.25(a)(11)(iv) 264.18(b)	———	———	———	
B-3b(1)(a) Flood Proofing and Flood Protection Measures A structural or other engineering study showing how design of the tanks, containers, or waste piles and the flood proofing and protection devices at the facility will prevent washout.	122.25(a)(11)(iv) (A) and (B)	———	———	———	
B-3b(1)(b) Flood Plan Description of the procedures to be followed to remove hazardous waste to safety before the facility is flooded, including timing related to flood levels, estimated time to move the waste, the location to which the waste will be moved, demonstration that those facilities will be eligible to receive hazardous waste (e.g., permitted by EPA under Part 122, by a state with authorization under Part 121, or facilities with interim status under 122 and 264).	122.25(a)(11)(iv) (C)	———	———	———	
B-3b(2) Plan for Future Compliance with Floodplain Standard For facilities located within the 100-yr floodplain that do not comply with the floodplain standard, a plan showing how and when the facility will be brought into compliance.	122.25(a)(11(v)	———	———	———	
B-4 Traffic Information A description of the traffic pattern, including estimated volume, traffic control, access road surfacing, load-bearing capacity, and traffic control signals.	122.25(a)(10)	———	———	———	

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PART C - WASTE CHARACTERISTICS					
C-1 Chemical and Physical Analyses For each hazardous waste incinerated at the facility, a general description of the waste, the hazard characteristics, the basis for hazard designation, and a laboratory report detailing the chemical and physical analyses of representative samples. At a minimum, the analyses should include identification of each major constituent and its percentage in the waste, heat value, viscosity quantification of any Part 261 Appendix VIII constituents, chlorine content, solids content and particle size, flashpoint, and moisture content.	122.25(a)(2) 264.13(a) 122.25(b)(5) 122.27(b)(1)	___	___	___	
C-2 Waste Analysis Plan A copy of the Waste Analysis Plan that describes how the analyses required to allow proper treatment of hazardous wastes will be carried out. For incinerators the plan should discuss the sampling, monitoring analytical techniques, and calculations required to determine chlorine (as HCl) removal efficiency; the DRE mass balance for each POHC, and particulate, CO_2 and O_2 concentrations in the stack exhaust. For the trial burn plan the location of sampling and monitoring points should be identified. To determine the fate of POHC's, sampling and analysis of ash residues and scrubber water and sludges as well as feed and stack gas are required; sampling and analytical techniques used should also be discussed in the waste analysis plan.	122.25(a)(3) 264.13(b) and (c)	___	___	___	
C-2a Parameters and Rationale A list of parameters chosen for analysis and an explanation of the rationale for their selection.	264.13(b)(1) 264.341	___	___	___	
C-2b Test Methods A description of test methods used to test for parameters chosen.	264.13(b)(2)	___	___	___	
C-2c Sampling Methods A list of the sampling methods used to obtain a representative sample of each waste to be analyzed.	264.13(b)(3) 261, Appendix I	___	___	___	

Subject requirement	40 CFR section Nos.	Provided	Not Provided	Not Applicable	Remarks
C-2d Frequency of Analyses A description of the frequency at which the analyses will be repeated for the trial burn and for operation thereafter. For an on-site facility this will be whenever there is a process change or as often as required to verify consistency of the waste feed.	264.13(b)(4)	—	—	—	
C-2e Additional Requirements for Wastes Generated Offsite A description of the procedures used to inspect and/or analyze wastes generated offsite that includes procedures to determine their identity and sampling methods used.	264.13(c)	—	—	—	
PART D - SPECIFIC PROCESS INFORMATION					
D-1 Incinerators					
D-1a Justification for Exemption The applicant should have documentation including waste analysis to show that the waste exhibits only the ignitability, corrosivity or selected reactivity characteristic of Subpart C, is not a listed waste in Subpart D, and contains no or insignificant levels of Appendix VIII constituents.	122.25(b)(5)(i) 264.340(b)	—	—	✓	
D-1b Trial Burn If the applicant decides to conduct a trial burn to prove the incinerator can meet the required performance standards under the established operating conditions, a trial burn plan must be submitted.	122.25(b)(5)(ii) 122.27(b)	—	—	—	
D-1b(1) Trial Burn Plan The trial burn plan should provide all the specific informational requirements for incinerators that must be submitted with the Part B Application. Subparts B through H of Part 264 must also be satisfied. Information submitted in the trial burn plan should satisfy requirements of Part 264, Subpart O.	122.27(b)(1)	—	—	—	2 HW streams CN & Solventmix no Appendix VIII in D on either (POHC)?
D-1b(1)(a) Waste Analysis See Subject Requirement C, Waste Characteristics for specifics.	122.27(b)(1)(i) 264.341	—	✓	—	

Subject Requirement	40 CFR Section Nos.	Provided	Not Provided	Not Applicable	Remarks
D-1b(1)(b) Engineering Description of Incinerator	122.27(b)(1)(ii) P. 107				
D-1b(1)(b)(1) Manufacturer's name and model number	122.27(b)(2)(ii)(B_1)	✓	—	—	
D-1b(1)(b)(2) Type of incinerator (e.g., liquid injection, rotary kiln, etc.)	122.27(b)(2)(ii)(B_2)	✓	—	—	
D-1b(1)(b)(3) Length and cross-section area of the combustion chamber	122.27(b)(2)(ii)(B_3)	✓	—	—	
D-1b(1)(b)(4) Description and type of auxiliary fuel system	122.27(b)(2)(ii)(B_4)	✓	—	—	
D-1b(1)(b)(5) Description of capacity of primary fan or blower and description of the equipment and instrumentation to continuously monitor and record the combustion gas velocity. Mfg's fan curves may also be included to evaluate prime mover.	122.27(b)(1)(ii)(E) 264.345	—	✓	—	No mention of combustion gas velocity monitor?
D-1b(1)(b)(6) Description of automatic waste feed cut-off system(s). This should include engineering drawings and narrative of what conditions or circumstances result in activation of waste feed cutoff and also a description of the valves, sensors, and other instrumentation.	122.27(b)(2)(ii)(B_6)	✓	—	—	
D-1b(1)(b)(7) Detailed description and engineering drawings of pollution control systems and stack gas monitoring instrumentation. Stack gas monitors should include at a minumum, instrumentation to continuously monitor and record CO levels.	122.27(b)(2)(ii)(B_7) 264.347	✓	—	—	

Subject requirement		40 CFR section Nos.	Provided	Not Provided	Not Applicable	Remarks
D-1b(1)(b)(8)	Description and/or engineering drawings of nozzles, conveyors, or other waste introduction equipment. Also detailed description and drawings of burner design including location and orientation of waste, auxiliary fuel, combustion air and, secondary air, nozzles, plenums, air locks, and other inlets for waste, air, or fuel.	122.27(b)(2)(ii)(B_8)	✓	—	—	
D-1b(1)(b)(9)	Construction materials of incinerator, pollution control equipment, pumps, piping, ductwork, valves and instrumentation such as thermocouples, probes for pressure differential incinerators, flame sensors, or other items that come into contact with the waste, waste constituents, or combusion products.	122.27(b)(2)(ii)(B_9)	✓	—	—	
D-1b(1)(b)(10)	Engineering drawings showing the location of temperature, pressure, and flow indicating, recording and control devices. Mfg's equipment and instrumentation specifications should be included. This must include instrumentation to <u>continuously monitor</u> and <u>record</u> waste feed rate.	122.27(b)(2)(vi)(J) 264.345(1)	—	✓	—	Seems to monitor feed rate but not record?
D-1b(1)(c)	<u>Sampling and Monitoring Procedures</u> See Subject Requirement C, Waste Characteristics.	122.27(b)(2)(ii)(C)	—	—	—	
D-1b(1)(d)	<u>Test Schedule</u>	122.27(b)(2)(ii)(D)				
D-1b(1)(d)(1)	Dates when shake-down and trial burn are planned	122.27(b)(2)(ii)(D)	—	✓	—	Still planning
D-1b(1)(d)(2)	The duration of each test burn	122.27(b)(2)(ii)(D)	✓	—	—	3 - 1 hr runs per waste
D-1b(1)(d)(3)	The quantity of waste to be burned during each test burn	122.27(b)(2)(ii)(D)	✓	—	—	max feed rate 47 gph

Subject requirement	40 CFR section Nos.	Provided	Not Provided	not Applicable	Remarks
D-1b(1)(e) Test Protocol for Each Waste or Significant Waste Variation	122.27(b)(2)(ii)(B)	—	✓	—	Refine POHC's in CW & Variability or max of max/ solvent/oil mix
Significant variations would include such items as increases in POHC levels; increases in levels of other hazardous constituents; change in ease of combustibility such as a decrease in waste heating values and increases in solids or halogen content.					
D-1b(1)(e)(1) Temperature at which each test burn will take place. the applicant should specify test burns for at least two temperatures unless he is confident that operating and performance standards will be met at the designated combustion temperature. Usually, and especially when auxiliary fuel is necessary, the applicant will want to extablish the minimum temperature at whoch all requirements will be met. This will also serve to establish the temperature at which automatic waste feed cutoff systems will be activated. If a temperature range is given in the Part B application, the permit writer should specify at least the lower temperature as a condition of the draft permit so that a "worst case" operating condition is used for at least one test burn.		✓	—	—	1832°F as minimum
D-1b(1)(e)(2) A waste feed rate for each test burn. The applicant will again want to test at more than one feed rate. To optimize the feed rate, the applicant will want to determine the maximum feed rate. If a feed rate range is given in the permit application, the permit writer should specify the upper limit of the range as a condition of the draft permit so that "worst case" operating parameters are used during at least one test burn.		✓	—	—	47 gpm as max

Subject requirement	40 CFR section Nos.	Provided	Not Provided	Not Applicable	Remarks
D-1b(1)(e)(3) Combustion gas velocity for each test burn should be established. Where systems have a blower(s) with one output rate (i.e., not adjustable), the output, should be designated in scfm at the specified system pressure drop.	? How is this monitored	—	—	—	negative pressure at inlet to waste heat boiler?
D-1b(1)(e)(4) An auxiliary fuel feed rate for each test burn.	122.27(b)(2)(ii)(E)	—	✓	—	not specific, only as needed to maintain 1800°F as feedshut off temp
D-1b(1)(f) Operating Conditions for Pollution Control Devises A description of conditions for pollution control devices including the following: (where applicable) (1) Pressure drops across equipment scrubbers and fabric filters; 26-32" (2) Temperature of inlet gases for quench tanks, scrubbers, fabric filters adn ESP's; 1600°F to boiler, no mention of scrubber max temp (3) Liquid/gas ratios for quench tanks and scrubbers and gas flow for fabric filters and ESP's; 65 gpm scrubber water (4) pH of scrubbing liquid for scrubbers. 8.0-8.5 - p. 109 Corrosiveness of inlet gas for fabric filters; 7.5-8.5 - p. 111 (5) Moisture content of inlet gases for fabric filters and ESP's; 7.5-8.5 - p. 117 (6) Rapping interval, intensity, and duration for ESP's; (only packed packing) (7) Resistivity of particulates in gas stream and applied voltage and current density for ESP's.	122.27(b)(2)(ii)(F)	—	—	—	
D-1b(2) Results of Trial Burn See Section C-2 Waste Characteristics	122.27(b)(5)(i) 122.27(b)(5)(iii)	—	—	—	
D-1b(3) Certification Submission of trial burn data must be signed and certified by a principal executive officer of at least the level of vice-president. Certification in accordance with 122.27 required only of data obtained pursuant to an approved trial burn.	122.27(b)(vi)(J)	—	—	—	